

ABSTRACT

The present invention relates to all optical choppers for shaping and reshaping. A chopper according to some embodiments of the invention may include a threshold device having an input terminal for receiving an optical input signal and an output terminal for emitting an optical output signal in response to a part of the input signal having intensity above a threshold level of the chopping device, wherein the output signal is narrower than the input signal. In other embodiments the device may include a first splitting device having at least first, second and third terminals, and at least one nonlinear element, wherein the second and third terminals form an optical loop including at least one nonlinear element displaced from the center of the optical loop, wherein the splitting device is arranged to receive an input signal for producing a first output signal that is narrower than the input signal. In further embodiments the optical loop includes at least one more attenuator.